

5 **What is Claimed is:**

1. A medicinal composition, comprising:

at least one pharmaceutical;

at least one nutraceutical; and

a pharmaceutically acceptable base;

10 wherein at least one of the pharmaceutical and the nutraceutical treats an immune response of the respiratory system.

2. A composition according to claim 1 wherein the immune response of the respiratory system causes a coughing reflex.

3. A composition according to claim 2, wherein said pharmaceutical is selected from a group consisting of cough suppressants, expectorants, decongestants, and combinations thereof.

4. A composition according to claim 3, wherein the pharmaceutical cough suppressant is dextromethorphan.

5. A composition according to claim 3, wherein the expectorant is guaifenesin.

6. A composition according to claim 3, wherein the decongestants are selected from a group consisting of phenylpropanolamine, pseudoephedrine, ephedrine, phenylephrine, naphazoline, oxymetazoline, tetrahydrozoline, xylometazoline, propylhexedrine, L-desoxyephedrine, effective salts thereof and combinations thereof.

7. A composition according to claim 1 wherein said nutraceutical is selected from a group consisting of immune boosters, antioxidants, liver protectants, cough reflex sedating agents, and mixtures thereof.

- 5 8. A composition according to claim 7, wherein the nutraceutical immune booster is selected from a group consisting of zinc and effective salts thereof, and at least one herb selected from a group consisting of herbs of the genus *Echinacea*, at least one herb selected from a group consisting of herbs of the genus *Sambucus*, Goldenseal and mixtures thereof.
- 10 9. A composition according to claim 7, wherein the nutraceutical anti-oxidant is selected from a group consisting of at least one bioflavonoid, at least one herbal extract containing at least one bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof, garlic and extracts thereof, green tea and its extracts, at least one herb selected from a group consisting of herbs of the genus *Astragalus*, and combinations thereof.
10. A composition according to claim 7, wherein the nutraceutical liver protectant is milk thistle.
11. A composition according to claim 7, wherein the cough reflex sedating agent is wild cherry bark, extracts thereof and combinations thereof.
12. A composition according to claim 2, wherein the pharmaceutical comprises an effective amount of a cough suppressant agent; and the nutraceutical comprises an effective amount of an immune boosting agent.
- 20 13. A composition according to claim 12, wherein the cough suppressant agent comprises dextromethorphan.
14. A composition according to claim 12, wherein the immune booster comprises at least one nutraceutical selected from a group consisting of the group zinc and effective salts thereof, at least one herb selected from a group consisting of herbs of the genus *Echinacea*, at least one herb selected from a group consisting of herbs of the genus *Sambucus*, Goldenseal, and
- 25

- 5 mixtures thereof.
15. A composition according to claim 12, further comprising at least one additive selected from the group consisting of:
- a) an antioxidant;
 - b) an expectorant;
 - 10 c) a decongestant;
 - d) a liver protectant; and
 - e) a cough reflex sedating agent.
16. A composition according to claim 12, further comprising an antioxidant selected from a group consisting of at least one bioflavonoid, at least one herbal extract containing at least one bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof, garlic and extracts thereof, green tea and its extracts, at least one herb selected from a group consisting of herbs of the genus *Astragalus*, and combinations thereof.
17. A composition according to claim 12, further comprising an expectorant comprising guaifenesin.
- 20 18. A composition according to claim 12, further comprising a decongestant selected from a group consisting of phenylpropanolamine, pseudoephedrine, ephedrine, phenylephrine, naphazoline, oxymetazoline, tetrahydrozoline, xylometazoline, propylhexedrine, L-desoxyephedrine, effective salts thereof and combinations thereof.
19. A composition according to claim 12, further comprising a liver protectant comprising milk
- 25 thistle.

- 5 20. A composition according to claim 12, further comprising a cough reflex sedating agent comprising wild cherry bark, extracts thereof and combinations thereof.
21. A composition according to claim 12, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises zinc and effective salts thereof.
22. A composition according to claim 12, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises at least one herb selected from a group consisting of herbs of the genus *Echinacea*.
23. A composition according to claim 12, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises at least one herb selected from a group consisting of herbs of the genus *Sambucus*.
24. A composition according to claim 12, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises Goldenseal.
25. A composition according to claim 2, wherein the pharmaceutical comprises, an effective amount of a cough suppressant; and the nutraceutical comprises, an effective amount of an antioxidant.
- 20 26. A composition according to claim 25, wherein the cough suppressant comprises dextromethorphan.
27. A composition according to claim 25, wherein the antioxidant is selected from a group consisting of at least one bioflavonoid, at least one herbal extract containing at least one bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof, garlic and extracts thereof, green tea and its extracts, at least one herb selected from a group
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consisting of herbs from the genus *Astragalus*, and combinations thereof.

28. A composition according to claim 25, further comprising at least one additive selected from the group consisting of:

- a) an expectorant;
- b) a decongestant;
- c) a liver protectant; and
- d) a cough reflex sedating agent.

29. A composition according to claim 25, further comprising an expectorant comprising guaifenesin.

30. A composition according to claim 25, further comprising a decongestant selected from a group consisting of phenylpropanolamine, pseudoephedrine, ephedrine, phenylephrine, naphazoline, oxymetazoline, tetrahydrozoline, xylometazoline, propylhexedrine, L-desoxyephedrine, effective salts thereof and combinations thereof.

31. A composition according to claim 25, further comprising a liver protectant comprising milk thistle.

32. A composition according to claim 25, further comprising a cough reflex sedating agent comprising wild cherry bark, extracts thereof and combinations thereof.

33. A composition according to claim 25, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises at least one bioflavonoid.

34. A composition according to claim 25, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises ascorbic acid and pharmaceutically

5 effective salts and derivatives thereof.

35. A composition according to claim 25, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises garlic and extracts thereof.

36. A composition according to claim 25, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises green tea and extracts thereof.

10 37. A composition according to claim 25, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises, at least one herb selected from a group consisting of herbs from the genus *Astragalus*.

38. A composition according to claim 2, wherein the pharmaceutical comprises, an effective amount of a cough suppressant; and
the nutraceutical comprises, an effective amount a cough reflex sedating agent.

39. A composition according to claim 38, wherein the cough suppressant comprises dextromethorphan.

40. A composition according to claim 38, wherein the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.

20 41. A composition according to claim 38, wherein the cough suppressant comprises dextromethorphan and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.

42. A composition according to claim 1, wherein the pharmaceutical comprises, an effective amount of an expectorant; and

25 the nutraceutical comprises, an effective amount of an immune booster.

5 43. A composition according to claim 42, wherein the expectorant comprises guaifenesin.

44. A composition according to claim 42, wherein the immune booster comprises at least one nutraceutical selected from the group zinc and effective salts thereof, at least one herb selected from a group consisting of herbs from the genus *Echinacea*, at least one herb selected from a group consisting of herbs of the genus *Sambucus*, goldenseal, and combinations thereof.

45. A composition according to claim 42, wherein the expectorant comprises guaifenesin and the immune booster comprises zinc and effective salts thereof.

46. A composition according to claim 42, wherein the expectorant comprises guaifenesin and the immune booster comprises at least one herb selected from a group consisting of herbs of the genus *Echinacea*.

47. A composition according to claim 42, wherein the expectorant comprises guaifenesin and the immune booster comprises at least one herb selected from a group consisting of herbs from the genus *Sambucus*.

48. A composition according to claim 42, wherein the expectorant comprises guaifenesin, and the immune booster comprises goldenseal.

49. A composition according to claim 1, wherein the pharmaceutical comprises, an effective amount of an expectorant; and the nutraceutical comprises, an effective amount of an antioxidant.

50. A composition according to claim 49, wherein the expectorant comprises guaifenesin.

51. A composition according to claim 49, wherein the antioxidant is selected from the group

5 consisting of at least one bioflavonoid, at least one herbal extract containing at least one
bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof,
garlic and extracts thereof, green tea and its extracts, at least one herb selected from a group
consisting of herbs from the genus *Astragalus*, and combinations thereof.

10 52. A composition according to claim 49, wherein the expectorant comprises guaifenesin and
the antioxidant comprises at least one bioflavonoid.

53. A composition according to claim 49, wherein the expectorant comprises guaifenesin and
the antioxidant comprises, ascorbic acid and pharmaceutically effective salts and derivatives
thereof.

54. A composition according to claim 49, wherein the expectorant comprises guaifenesin and
the antioxidant comprises garlic and extracts thereof.

55. A composition according to claim 49, wherein the expectorant comprises guaifenesin and
the antioxidant comprises green tea and its extracts.

56. A composition according to claim 49, wherein the expectorant comprises guaifenesin and
the antioxidant comprises at least one herb selected from a group consisting of herbs from
the genus *Astragalus*.

57. A composition according to claim 2, wherein the pharmaceutical comprises, an effective
amount of an expectorant
the nutraceutical comprises, an effective amount of a cough reflex sedating agent.

58. A composition according to claim 48, wherein the expectorant comprises guaifenesin, and
the cough reflex sedating agent comprises wild cherry bark, extracts thereof and

combinations thereof.

59. A composition according to claim 2, wherein the pharmaceutical comprises, an effective amount of a decongestant; and
the nutraceutical comprises, a cough reflex sedating agent.

60. A composition according to claim 59, wherein the decongestant comprises at least one drug selected from a group consisting of pseudoephedrine, phenylpropanolamine, phenylephrine, ephedrine, and effective salts thereof.

61. A composition according to claim 59, wherein the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.

62. A composition according to claim 59, wherein the decongestant comprises pseudoephedrine and the cough reflex sedating agent comprised wild cherry bark, extracts thereof and combinations thereof.

63. A composition according to claim 59, wherein the decongestant comprises phenylpropanolamine, and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.

64. A composition according to claim 59, wherein the decongestant comprises phenylephrine, and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.

65. A composition according to claim 59, wherein the decongestant comprises ephedrine, and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.

- 5 66. A method of treating a cough, comprising:
- at least one pharmaceutical;
- at least one nutraceutical; and
- a pharmaceutically acceptable base;
- wherein at least one of the pharmaceutical and the nutraceutical treats an immune
- 10 response of the respiratory system.
67. A method according to claim 66, wherein the immune response of the respiratory system causes a coughing reflex.
68. A method according to claim 66 wherein said pharmaceutical is selected from a group consisting of cough suppressants, expectorants and decongestants, and combinations thereof.
69. A method according to claim 68, wherein the pharmaceutical cough suppressant is dextromethorphan.
70. A method according to claim 68, wherein the expectorant is guaifenesin.
71. A method according to claim 68, wherein the decongestants are selected from a group consisting of phenylpropanolamine, pseudoephedrine, ephedrine, phenylephrine, naphazoline, oxymetazoline, tetrahydrozoline, xylometazoline, propylhexedrine, L-desoxyephedrine, effective salts thereof and combinations thereof.
- 20 72. A method according to claim 66, wherein said nutraceutical is selected from a group consisting of immune boosters, antioxidants, liver protectants, cough reflex sedating agents, and mixtures thereof.
- 25 73. A method according to claim 72, wherein the nutraceutical immune booster is selected from

5 a group consisting of zinc and effective salts thereof, and at least one herb selected from a group consisting of herbs of the genus *Echinacea*, at least one herb selected from a group consisting of herbs of the genus *Sambucus*, Goldenseal and mixtures thereof.

74. A method according to claim 72, wherein the nutraceutical anti-oxidant is selected from a group consisting of at least one bioflavonoid, at least one herbal extract containing at least
10 one bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof, garlic and extracts thereof, green tea and its extracts, at least one herb selected from the group consisting of herbs of the genus *Astragalus*, and combinations thereof.

75. A method according to claim 72, wherein the nutraceutical liver protectant is milk thistle.

76. A method according to claim 72, wherein the cough reflex sedating agent is wild cherry bark, extracts thereof and combinations thereof.

77. A method according to claim 67, wherein the pharmaceutical comprises an effective amount of a cough suppressant agent; and
the nutraceutical comprises an effective amount of an immune booster.

78. A method according to claim 77, wherein the cough suppressant agent comprises
20 dextromethorphan.

79. A method according to claim 77, wherein the immune booster comprises at least one nutraceutical selected from a group consisting of the group zinc and effective salts thereof, at least one herb selected from a group consisting of herbs of the genus *Echinacea*, at least one herb selected from a group consisting of herbs of the genus *Sambucus*, Goldenseal, and
25 mixtures thereof.

5 80. A method according to claim 77, further comprising at least one additive selected from the group consisting of:

- a) an antioxidant;
- b) an expectorant;
- c) a decongestant;
- 10 d) a liver protectant; and
- e) a cough reflex sedating agent.

81. A method according to claim 77, further comprising an antioxidant selected from a group consisting of at least one bioflavonoid, at least one herbal extract containing at least one bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof, garlic and extracts thereof, green tea and its extracts, at least one herb selected from the group consisting of herbs of the genus *Astragalus*, and combinations thereof.

82. A method according to claim 77, further comprising an expectorant comprising guaifenesin.

83. A method according to claim 77, further comprising a decongestant selected from a group consisting of phenylpropanolamine, pseudoephedrine, ephedrine, phenylephrine, naphazoline, oxymetazoline, tetrahydrozoline, xylometazoline, propylhexedrine, L-desoxyephedrine, effective salts thereof and combinations thereof.

84. A method according to claim 77, further comprising a liver protectant comprising milk thistle.

85. A method according to claim 77, further comprising a cough reflex sedating agent comprising wild cherry bark, extracts thereof and combinations thereof.

- 5 86. A method according to claim 77, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises zinc and effective salts thereof.
87. A method according to claim 77, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises at least one herb selected from a group consisting of herbs of the genus *Echinacea*.
- 10 88. A method according to claim 77, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises at least one herb selected from a group consisting of herbs of the genus *Sambucus*.
89. A method according to claim 77, wherein the cough suppressant comprises dextromethorphan and the immune booster comprises Goldenseal.
90. A method according to claim 67, wherein the pharmaceutical comprises, an effective amount of a cough suppressant; and the nutraceutical comprises, an effective amount of an antioxidant.
91. A method according to claim 90, wherein the cough suppressant comprises dextromethorphan.
- 20 92. A method according to claim 90, wherein the antioxidant is selected from a group consisting of at least one bioflavonoid, at least one herbal extract containing at least one bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof, garlic and extracts thereof, green tea and its extracts, at least one herb selected from a group consisting of herbs from the genus *Astragalus*, and combinations thereof.
- 25 93. A method according to claim 90, further comprising at least one additive selected from the

5 group consisting of:

- a) an expectorant;
- b) a decongestant;
- c) a liver protectant; and
- d) a cough reflex sedating agent.

10 94. A method according to claim 90, further comprising an expectorant comprising guaifenesin.

95. A method according to claim 90, further comprising a decongestant selected from a group consisting of phenylpropanolamine, pseudoephedrine, ephedrine, phenylephrine, naphazoline, oxymetazoline, tetrahydrozoline, xylometazoline, propylhexedrine, L-desoxyephedrine, effective salts thereof and combinations thereof.

96. A method according to claim 90, further comprising a liver protectant comprising milk thistle.

97. A method according to claim 90, further comprising a cough reflex sedating agent comprising wild cherry bark, extracts thereof and combinations thereof.

98. A method according to claim 90, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises at least one bioflavonoid.

99. A method according to claim 90, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises ascorbic acid and pharmaceutically effective salts and derivatives thereof.

100. A method according to claim 90, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises garlic and extracts thereof.

- 5 101. A method according to claim 90, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises, green tea and extracts thereof.
102. A method according to claim 90, wherein the cough suppressant comprises dextromethorphan and the antioxidant comprises, at least one herb selected from a group consisting of herbs of the genus *Astragalus*.
- 10 103. A method according to claim 67, wherein the pharmaceutical comprises, an effective amount of a cough suppressant; and
the nutraceutical comprises, an effective amount a cough reflex sedating agent.
104. A method according to claim 103, wherein the cough suppressant comprises dextromethorphan.
105. A method according to claim 103, wherein the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.
106. A method according to claim 103, wherein the cough suppressant comprises dextromethorphan and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.
- 20 107. A method according to claim 66, wherein the pharmaceutical comprises, an effective amount of an expectorant; and
the nutraceutical comprises, an effective amount of an immune booster.
108. A method according to claim ^{107?} (103), wherein the expectorant comprises guaifenesin.
109. A method according to claim (103), wherein the immune booster comprises at least one
25 nutraceutical selected from a group consisting of zinc and effective salts thereof, at least one

herb selected from a group consisting of herbs from the genus *Echinacea*, at least one herb selected from a group consisting of herbs of the genus *Sambucus*, goldenseal, and combinations thereof.

110. A method according to claim ¹⁰⁷(103) wherein the expectorant comprises guaifenesin and the immune booster comprises zinc and effective salts thereof.

111. A method according to claim ¹⁰⁷(103) wherein the expectorant comprises guaifenesin and the immune booster comprises at least one herb selected from a group consisting of herbs of the genus *Echinacea*.

112. A method according to claim ¹⁰⁷(103) wherein the expectorant comprises guaifenesin and the immune booster comprises at least one herb selected from a group consisting of herbs from the genus *Sambucus*.

113. A method according to claim ¹⁰⁷(103) wherein the expectorant comprises guaifenesin, and the immune booster comprises goldenseal.

114. A method according to claim 66, wherein the pharmaceutical comprises, an effective amount of an expectorant; and

the nutraceutical comprises, an effective amount of an antioxidant.

115. A method according to claim 114, wherein the expectorant comprises guaifenesin.

116. A method according to claim 114, wherein the antioxidant is selected from a group consisting of at least one bioflavonoid, at least one herbal extract containing at least one bioflavonoid, ascorbic acid and pharmaceutically effective salts and derivatives thereof, garlic and extracts thereof, green tea and its extracts, at least one herb selected from a group

- 5 consisting of herbs from the genus *Astragalus*, and combinations thereof.
117. A method according to claim 114, wherein the expectorant comprises guaifenesin and the antioxidant comprises at least one bioflavonoid.
118. A method according to claim 114, wherein the expectorant comprises guaifenesin and the antioxidant comprises, ascorbic acid and pharmaceutically effective salts and derivatives thereof.
- 10 thereof.
119. A method according to claim 114, wherein the expectorant comprises guaifenesin and the antioxidant comprises garlic and extracts thereof.
120. A method according to claim 114, wherein the expectorant comprises guaifenesin and the antioxidant comprises green tea and its extracts.
121. A method according to claim 114, wherein the expectorant comprises guaifenesin and the antioxidant comprises at least one herb selected from a group consisting of herbs of the genus *Astragalus*.
122. A method according to claim 67, wherein the pharmaceutical comprises, an effective amount of an expectorant
- 20 the nutraceutical comprises, an effective amount of a cough reflex sedating agent.
123. A method according to claim 122, wherein the expectorant comprises guaifenesin, and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.
124. A method according to claim 67, wherein the pharmaceutical comprises, an effective amount of a decongestant; and
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- 5 the nutraceutical comprises, a cough reflex sedating agent.
125. A method according to claim 124, wherein the decongestant comprises at least one drug selected from a group consisting of pseudoephedrine, phenylpropanolamine, phenylephrine, ephedrine, and effective salts thereof.
126. A method according to claim 124, wherein the cough reflex sedating agent comprises wild
10 cherry bark, extracts thereof and combinations thereof.
127. A method according to claim 124, wherein the decongestant comprises pseudoephedrine and the cough reflex sedating agent comprised wild cherry bark, extracts thereof and combinations thereof.
128. A method according to claim 124, wherein the decongestant comprises phenylpropanolamine, and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.
129. A method according to claim 124, wherein the decongestant comprises phenylephrine, and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.
- 20 130. A method according to claim 124, wherein the decongestant comprises ephedrine, and the cough reflex sedating agent comprises wild cherry bark, extracts thereof and combinations thereof.